

# Metastorm *infowise* Enterprise Edition for GroupWise

## Considerations and Capabilities White Paper

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## Quick Profile

**Product:** METASTORM INFOWISE™ ENTERPRISE EDITION FOR GROUPWISE™

**Summary:** With the average knowledge working receiving or sending 200 messages per day, the greatest user frustration is in finding the right information in an often enormous backlog of e-mail content. Relevant data may be located in messages, attachments, notes, tasks, and even calendar events. The challenge becomes how to easily organize and quickly access this information. *infowise*, developed by Metastorm for Novell® GroupWise, solves this problem for any GroupWise user.

*infowise* is a content organization application that checks each incoming GroupWise message and classifies it based on content. Users access organized information through *iViews*, a windowed view to all messages, documents and attachments that organizes them by how closely their meaning matches the context of any selected message.

*infowise* eliminates the tedious task of manually searching through volumes of messages to find related information. Users can simply select a message and *infowise* will find all GroupWise objects with similar content--content analysis and comparisons are performed automatically. Users can also pre-define organization rules so that incoming messages are classified and sorted by any criteria.

- Key Benefits:**
- Easier and faster location of relevant information contained in any GroupWise object
  - Automated indexing and sorting of messages based on content
  - Quick searches
  - Dynamic creation of collections
  - Spend less time organizing messages
  - Cross reference information easily

**Pricing:** ????

**Licensing:** ????????

- Availability:**
- Novell Authorized Resellers
  - Through Novell Direct Sales
  - Through Metastorm - [www.metastorm.com](http://www.metastorm.com)

**For Additional Information:** [www.novell.com/products/groupwise/partners/knowledge\\_mgmt.html#metastorm](http://www.novell.com/products/groupwise/partners/knowledge_mgmt.html#metastorm)

## Installation Requirements

### Minimum Hardware Specification:

- Intel® Pentium® II 300MHz
- 64MB Memory
- 100MB Hard drive space

### Recommended Hardware Specification:

- Intel® Pentium® II 450MHz
- 128MB Memory
- 100MB Hard drive space

### Operating System:

- Microsoft® Windows® 2000
- Microsoft® Windows NT® 4.0 (service pack 6 or later)
- Microsoft Windows® ME®
- Microsoft Windows® 98 SE
- Microsoft Windows® 98

### GroupWise Software:

- Novell GroupWise® 5.5 Enhancement Pack
- Novell GroupWise® 6

## Overview

E-mail has fundamentally altered our methods and systems of communication. Where messages were once formal paper documents that arrived at daily intervals in manageable quantities, they are now sent or received instantly, some just fragments of thought, and in quantities that can be hundreds per day. We get faster information, from more people in much higher volumes.

While the average e-mail recipient can usually read or browse this information as it comes in, the difficulty arises in organizing and classifying it for action or future access. Several messages may relate to a single topic; organization may be required around a particular concept or idea; and, content categorized messages may be valuable for shared access.

In addition to the text content of common e-mail messages, there is often valuable and related information contained in other message objects such as notes, tasks, to-do lists, calendar events, and attachments. Helpful levels of classification include organization by date, by sender, by topic and by content.

How do users keep this volume of information organized? Most don't. If they do, it is usually only at one level such as by one or two major topics or projects. For the average user, the ability to easily classify and search personal information by related content has not existed--even with the most advanced technology--until now. *infowise*, developed for Novell GroupWise users by Metastorm using Intel's Automatic Organizer Software, significantly simplifies the searching and organization of GroupWise messages and message objects.

*Infowise* provides the ability to analyze an e-mail or GroupWise message object for content. Once this analysis is complete, *infowise* will find all message objects that are contextually related and rank them by relevancy. Message objects can then be grouped for viewing, moved to specific folders, or shared with other users. Since *infowise* indexes message content, message objects can be sorted or organized on criteria and at multiple levels at once. Message collections can be created on-the-fly as new topics or needs for classification arise, or they may be automatically sorted on receipt using predefined parameters.

Using *infowise* enables users to locate topic specific information much easier and faster than with any other method. Organization of messages can be based on relevant content, not just on key words or manually entered phrases. Users spend little, if any, time organizing messages and yet are able to instantly access message objects by content. Collections of related messages can be created dynamically and used for cross referencing on any number of related topics.

## E-mail Market Facts

E-mail use has experienced phenomenal growth, not only in the number of e-mail users but in the number of messages sent and received. According to Wall Street Journal, the average knowledge worker sends or receives 200 messages per day (*source: "Managing the Mountain", WSJ, 7/21/99*). With the general increase in e-mail use, these figures are not decreasing. The emergence of e-business connections with individuals in companies being connected to suppliers, distributors, customers and partners will accelerate the volume of electronically transmitted information.

GroupWise is one of the leading e-mail and personal information management solutions in the world with over 20 million users worldwide. Enterprise companies, educational institutions, and organizations of all types and sizes use GroupWise as an integral part of their communication infrastructure. GroupWise's advanced feature set with common inbox for messages, fax, documents, calendar events, task lists, etc. is now enhanced with *infowise* search and organization capability making it one of the most powerful communication technologies available.

## Intelligent Search Concepts

From its early beginnings, the Internet has had "search" capabilities. Virtually every Internet user has at some point, utilized a search engine to find information or a specific Web page. The process is simple and for the great majority, the technology that makes it happen is hidden. Users simply type in a few keywords and the search engine returns links to documents containing those words.

*infowise*, however, takes "search" to an entirely new level. To help illustrate why *infowise* is so revolutionary, a comparison of contemporary search technology and *infowise* technology is in order. Standard search technologies all operate using the same general principles. All documents to be searched (a file directory, file list, or even all Web pages on the Internet), are read and indexed. The indexing process notes each word instance and its location and stores this information in an easily searchable "index file". Whenever a query for a word or collection of words is made, the index file is searched and the location of any matching words is returned. More sophisticated searches can include exact phrases or combinations of words with Boolean operators (and, or, not).

*infowise* expands common search technology to include not just specified words but also the "context" of documents. Using Intel® Automatic Organizer™ Software (AOS), *infowise* performs statistical analysis of documents to identify themes and common patterns from text. A document (or e-mail message, task, event, etc.) can then be used as an example of the type of information that you would "like more of". *infowise* compares the analysis of the example document with all other objects in the index and determines a quantitative relevancy or similarity score. If the content and text patterns of an indexed object are similar to the example document, a high similarity score is generated. A collection of similar objects can then be created with the resulting list being ranked based on these scores.

Using AOS, *infowise* can be "trained" to automatically sort and organize GroupWise objects. Users can easily create a profile of the type of information that they would like more of. Profiles can be refined or modified to aid in precisely identifying the desired information type.

As a result, AOS technology in *infowise* produces a search capability that is far more intelligent than standard word searches. Context-based relevance enables "meaning" to be extracted from a message object and this meaning is used to find other similar information.

## **Who Uses *infowise*?**

*infowise* is valuable to any GroupWise user that has the need for organized messages. This includes knowledge workers, administrators, managers, secretaries and any other individuals with a moderate to large volume of message objects. These individuals may reside in small businesses or large enterprise companies, education, government or any connected organization.

*infowise* can be particularly valuable when used with shared folders and groups. *iViews* (collections of message objects) can be created for projects, specific clients or customers, partners, products, or any other classification. These collections are then available to anyone that is properly authenticated through GroupWise.

In short, any GroupWise user can benefit from using *infowise*. Even if they do not send or receive a significant number of messages, they can benefit from organized information in shared folders.

## **What Can I Do With *infowise*?**

*infowise* can be applied to any method of message organization that a user desires. Unlike other search methods that require the user input keywords or combinations of text, *infowise* captures the context of one or more message objects as a profile and then finds other messages with similar information. Finding related information is fast and easy. Here are several examples.

### *Project Information*

A job superintendent has four different projects in process and receives messages and attachments about the progress and status of each one. E-mail and documents regarding each project generally contain project identifiable information but not in the same location or format (such as in the subject line). The superintendent can select a representative message for each project as a profile and then have messages with similar content sorted to views where only that project information is viewable.

The superintendent may also want to create ad-hoc views of all messages containing information about a particular regulation, component, or process. Again, he can do so easily by selecting a message about the topic as a profile and then having *infowise* search for all other messages that are related to the profile.

### *Document Management*

GroupWise's document management capabilities can be extended to accommodate having documents appear in multiple views. For example, a patient's medical test results may appear in one view that shows all medical records for that individual. The same document may also appear in a view that shows all test results with similar findings. And, it may appear in a view that shows all records for a particular doctor.

Similar uses of the technology can be applied to legal documents, customer resource management, help desk and support, etc.

*Personal Mangement*

Individuals can use *infowise* to search for and organize message objects by any of the following methods:

<b>Organization Method</b>	<b>Example</b>
<b>Issue</b>	Collect messages around any issue such as schedule, cost, delay, termination, etc.
<b>Project</b>	Create views of messages that relate to projects, locations, disciplines, etc.
<b>Individual/Group</b>	View all message objects that include reference to one or more individuals or groups
<b>Date</b>	Organize by send/receive date or dates included in text
<b>Event</b>	Events such as announcements, releases, promotions, tradeshow, closes, etc.
<b>Topic</b>	Organize and view messages according to topics such as news, announcements, ideas, themes, subjects, terms, etc.
<b>Ad-hoc</b>	Create an ad-hoc view of related messages just by entering keywords or phrases

*News*

Many users have subscriptions to news or list servers where breaking news or periodic summaries are sent automatically via e-mail. Using *infowise*, these messages can be automatically evaluated for content and then sorted for viewing or moved to an appropriate folder. The manual task of reading each message, deciding where to store it, and then moving it to a folder is completely automated. Users are able to create complete message archives around any topic or story.

## **Benefits**

*infowise* benefits include faster access to relevant information, simplified organization, comprehensive cross referencing, and automated classification. The result of these benefits is increased productivity and lower information management costs.

*infowise* eliminates the tedious task of manually searching through volumes of messages to find related information. Users can simply select a message and *infowise* will find all GroupWise objects with similar content. Access to desired information is fast, convenient and without frustration or tedious searching.

Using *infowise's* automated classification and sorting capabilities allows users to simplify e-mail management. There is no longer a need to guess what folders should be created in advance for mail and then manage this evolving list. Collections of related messages can be created dynamically and incoming messages can be sorted automatically. And, individual messages can be included in multiple collections making it possible to create comprehensive cross references on related topics.

Individual users spend less time searching for relevant information and less effort trying to categorize and reorganize their message archives. Groups can more efficiently share information for more effective communication with the end result being increased productivity.

## **infowise Features**

*infowise* includes several features that assist in searching, sorting and organizing GroupWise message objects. These features may be used in conjunction with each other to provide added flexibility. For example, the **Auto Sort and Index** feature may be used with the **Move to Folder** feature--incoming messages are automatically scanned and then moved to a folder based on content.

<b>Feature</b>	<b>Description</b>
<b>Relevancy Search</b>	Pick a GroupWise message and find all objects that are relevant to the context of the message. Select additional messages to refine or expand the search.
<b>Auto Sort and Index</b>	Automatically scan incoming message objects, index them and sort them based on related relevancy.
<b>Jump Start</b>	Create an <i>iView</i> (collection of related objects) by directly entering key words or phrases.
<b>Rules</b>	Automatically select closely related items to refine the search criteria.
<b>Move to Folder</b>	Automatically move all related messages in an <i>iView</i> to a specific GroupWise folder.
<b>Multiple Views</b>	Multiple viewing options (including Helper, List View, Profile Manager and Filter Manager) provide different ways to view and filter related GroupWise objects.
<b>Quick Search</b>	Immediately find related information from any GroupWise by entering keywords.
<b>Dynamic Recalculation</b>	Automatically regenerate <i>iView</i> collections using new criteria, filters, or additional context.

*iViews* may be used with GroupWise shared folders in *infowise* Enterprise Edition. Anyone with access to the shared folder may open and view an *iView* that is contained in the folder. Messages in the *iView* that the user has access to will be available, while messages that are not accessible will be grayed out. The *iView* may also be modified by other users to create a new *iView* in their local mailboxes.

*infowise* will include messages in any archive or proxy accounts that a user has open. For example, a user may have open an archive account, a colleague's account by proxy, and an additional mail account--all of these accounts will be included in the scan for relevant message objects.

## How *infowise* Works

*infowise* uses classification technology developed by the Intel Architecture Labs (IAL). Ethnographic researchers at Intel discovered that computer users spend a significant amount of time combing through previously read e-mail and attachments searching for isolated snippets of important information. The result of this discovery was the development of Intel® Automatic Organizer™ technology.

Intel Automatic Organizer technology categorizes information and enables users to rapidly and easily organize e-mail. Intel Automatic Organizer technology, which features advanced relevance algorithms, performs a statistical analysis of selected documents to identify themes and common patterns from text. From these patterns, a comparative profile is created that is used to find other documents with similar elements or context. These elements of interest are then ranked in order of similarity.

Three Automatic Organizer technologies (categorization, profiling and clustering algorithms) enable *infowise* to seamlessly organize GroupWise content for easy access. Categorization algorithms use classification rules to group similar documents. Profiling builds a precise characterization of interests for each individual or interest category. And clustering components group information around specified themes.

*infowise* applies Automatic Organizer technology to GroupWise message stores. The software is installed at the GroupWise desktop and creates a virtual view of messages that does not alter or affect the underlying GroupWise message store or database. When *infowise* is initially installed, the selected message store is scanned and indexed and the results are stored. When a user selects a message object as a pattern or example for which he would like to find similar messages, the index is searched for related objects and the results are returned in an *infowise* window called an intelligent view or *iView*.

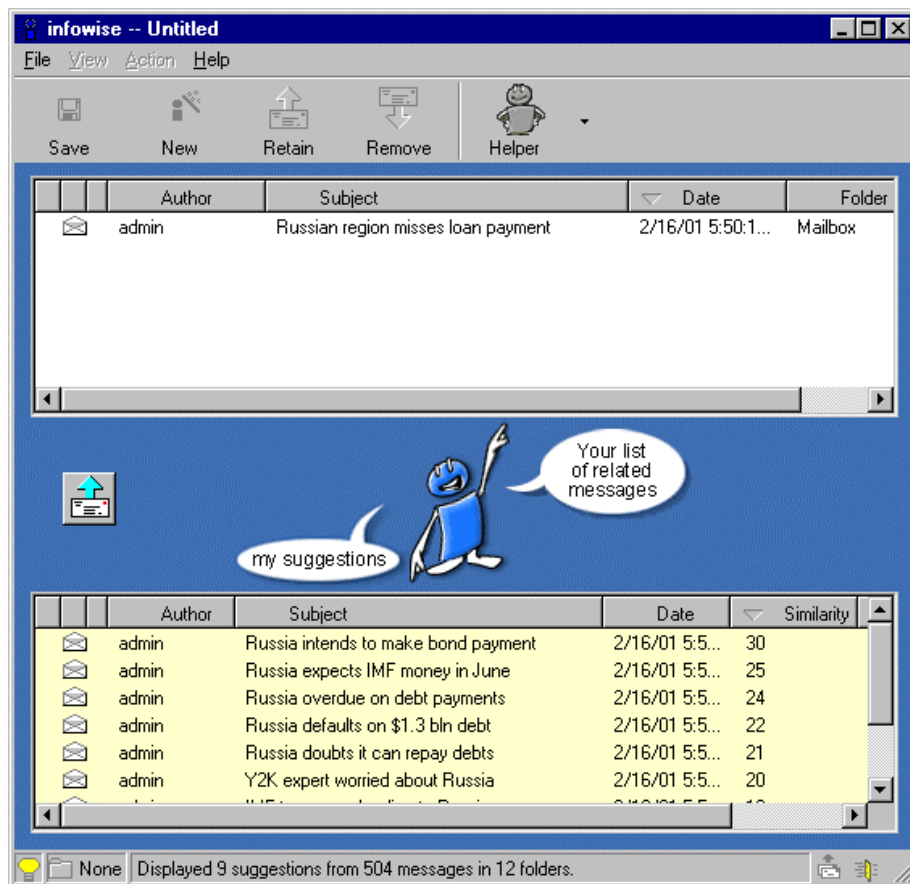
An *iView* is a local view of the collection results and does not restructure or alter the GroupWise message store. It can be thought of as a dynamic list of pointers that connect to the related message objects. Since *infowise* operates independently from the message store, the same message objects can 'appear' to be organized in many different ways--the same message object may appear in multiple *iViews*. This powerful feature makes it possible to cross reference message objects on a multitude of topics.

*infowise* adheres to the same authentication policies as GroupWise--the only messages that are viewable in an *iView* are those that the user is authorized to see. However, with the GroupWise shared folder capability users are able to create *iViews* that are accessible by other users and groups.

*iViews* are similar to structured queries in that they can be added to or modified to more precisely locate targeted information. For example, two or more messages may be added to the search window and the combined content is used to create an example profile. *iViews* can be saved for future reference or established as dynamic collections that automatically scan and classify all incoming new messages.

## Using *inforwise*

Using *inforwise* is easy. Once *inforwise* has been installed at the client, the *inforwise* icon appears on the GroupWise task bar. Selecting the icon brings up the *inforwise* window which is simple and intuitive to use. To create a collection of related messages, simply select the message object that you would like to see more of and then select the "Helper" icon. *inforwise* returns a suggested list of message objects with related content.



Listed below are a few of the *inforwise* operations available under Menu Options:

Menu Option	Selection	Description
File	New	Creates a new <i>iView</i> using terms you specify
	Save	Saves <i>iView</i> for future use
View	Helper	Enables illustrated character help
	Profile Manager	Displays profile manager
	Filter Manager	Displays filter manager
	Similarity Profile	Displays similarity profile
Action	Recompute	Manually recomputes suggestion list
	Move to Folder	Moves or links item(s) from Related Items list to the GroupWise folder you specify
	Rule	Allows you to create, edit, and enable rules for how <i>inforwise</i> should handle messages

## About Novell

Novell, Inc. (NASDAQ:NOVL) is the world's leading provider of directory-enabled networking software. Novell solutions give businesses total control of their private networks and the Internet, simplifying the management of user access and identity. Novell's worldwide channel, consulting, developer, education and technical support programs are the most extensive in the network computing industry.

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